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PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of : Sudhindra P. Herle
Serial No. : 09/653,764
Filed : September 1, 2000
For : SYSTEM AND METHOD FOR SECURE OVER-THE-AIR ADMINISTRATION OF A WIRELESS MOBILE STATION
Group No. : 2134
Examiner : Michael J. Simitoski

MAIL STOP AF
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

PROPOSED AMENDMENT

Please amend the application as follows.

IN THE CLAIMS

The current claims follow. For claims not marked as amended in this response, any difference in the claims below and the previous state of the claims is unintentional and in the nature of a typographical error.

1. (Currently Amended) A mobile station that communicates ~~capable of communicating~~ with a plurality of base stations in a wireless network and receives~~ing~~ at least one of a software program, a software correction patch and provisioning data from a server associated with said wireless network, said mobile station comprising:

an RF transceiver that receives ~~capable of receiving~~ wireless messages from said plurality of base stations and converts~~ing~~ said received wireless messages to a plurality of Internet protocol (IP) packets;

an encryption controller that converts ~~capable of converting~~ said IP packets from an encrypted format to a decrypted format according to at least one of:

IP Sec tunneling protocol;

Secure Shell (SSH) tunneling protocol;

Secure Sockets Layer/Transport Layer Security (SSL/TLS); and

point-to-point tunneling protocol (PPTP); and

a data burst message protocol controller that converts ~~capable of converting~~ said decrypted IP packets to at least one data burst message,

wherein said mobile station accesses at least one of said software program, said software correction patch and said provisioning data via a public IP network and automatically applies at least one of said software program, said software correction patch and said provisioning data.

2. (Cancelled)

3. (Previously Presented) The mobile station as set forth in Claim 1 wherein each of said IP packets comprise IP layer information and an IP packet payload.

4. (Previously Presented) The mobile station as set forth in Claim 3 wherein said IP packet payload comprises transmission control protocol (TCP) layer information.

5. (Original) The mobile station as set forth in Claim 4 wherein said IP packet payload comprises an over-the-air service provisioning payload associated with said at least one data burst message.

6. (Previously Presented) The mobile station as set forth in Claim 1 wherein each of said IP packets comprises IP layer information, transmission control protocol (TCP) layer information and a IP packet payload.

7. (Previously Presented) The mobile station as set forth in Claim 6 wherein said IP packet payload comprises an over-the-air service provisioning payload associated with said at least one data burst message.

8. (Currently Amended) The mobile station as set forth in Claim 1 wherein said data burst message protocol controller ~~is capable of converting~~ said decrypted IP packets to said at least one data burst message according to at least one of: 1) an IS-683-A protocol; 2) a short messaging service (SMS) protocol; and 3) extensible mark-up language (XML) protocol.

9. (Currently Amended) A system for secure over-the-air administration of a wireless mobile station via a base station in a wireless network, said system ~~that transmits~~ ~~capable of transmitting~~ to said wireless mobile station at least one of a software program, a software correction patch and provisioning data from a server associated with said wireless network, said system comprising:

a data burst message protocol controller ~~that receives~~ ~~capable of receiving~~ and ~~converting~~ said at least one of a software program, a software correction patch and provisioning data into at least one data burst message;

an encryption controller ~~that converts~~ ~~capable of converting~~ said at least one data burst message into a plurality of encrypted IP packets according to at least one of:

IP Sec tunneling protocol;

Secure Shell (SSH) tunneling protocol;
Secure Sockets Layer/Transport Layer Security (SSL/TLS); and
point-to-point tunneling protocol (PPTP); and
an RF transceiver that converts ~~capable of converting~~ said encrypted IP packets into at least one wireless message and ~~transmitting~~ said at least one wireless message to said wireless mobile station,

wherein said mobile station accesses at least one of said software program, said software correction patch and said provisioning data via a public IP network and automatically applies at least one of said software program, said software correction patch and said provisioning data.

10. (Cancelled).

11. (Previously Presented) The system as set forth in Claim 9 wherein each of said IP packets comprises IP layer information and a IP packet payload.

12. (Previously Presented) The system as set forth in Claim 11 wherein said IP packet payload comprises transmission control protocol (TCP) layer information.

13. (Original) The system as set forth in Claim 12 wherein said IP packet payload comprises an over-the-air service provisioning payload associated with said at least one data burst

message.

14. (Previously Presented) The system as set forth in Claim 9 wherein each of said IP packets comprises IP layer information, transmission control protocol (TCP) layer information and a IP packet payload.

15. (Currently Amended) The system as set forth in Claim 14 wherein ~~the~~ said IP packet payload comprises an over-the-air service provisioning payload associated with said at least one data burst message.

16. (Currently Amended) The system as set forth in Claim 9 wherein said data burst message protocol controller that converts ~~is capable of converting~~ said at least one of a software program, a software correction patch and provisioning data to said at least one data burst message according to at least one of: 1) an IS-683-A protocol; 2) a short messaging service (SMS) protocol; and 3) extensible mark-up language (XML) protocol.

17. (Currently Amended) For use in a wireless network, a method for securely transmitting to a wireless mobile station at least one of a software program, a software correction patch and provisioning data from a server associated with the wireless network, the method comprising the steps of:

receiving and converting the at least one of a software program, a software correction patch and provisioning data into at least one data burst message;

converting ~~the said~~ at least one data burst message into a plurality of encrypted IP packets;

converting ~~the said~~ encrypted IP packets into at least one wireless message according to at least one of:

IP Sec tunneling protocol;

Secure Shell (SSH) tunneling protocol;

Secure Sockets Layer/Transport Layer Security (SSL/TLS); and

point-to-point tunneling protocol (PPTP); and

transmitting ~~the said~~ at least one wireless message to ~~the said~~ wireless mobile station,

wherein said mobile station accesses at least one of said software program, said software correction patch and said provisioning data via a public IP network and automatically applies at least one of said software program, said software correction patch and said provisioning data.

18. (Cancelled).

19. (Currently Amended) The method as set forth in Claim 17 wherein each of ~~the said~~ IP packets comprises IP layer information and a IP packet payload.

20. (Currently Amended) The method as set forth in Claim 19 wherein ~~the said~~ IP packet

payload comprises transmission control protocol (TCP) layer information.

21. (Currently Amended) The method as set forth in Claim 20 wherein ~~the said~~ IP packet payload comprises an over-the-air service provisioning payload associated with ~~the said~~ at least one data burst message.

22. (Currently Amended) The method as set forth in Claim 17 wherein each of ~~the said~~ IP packets comprises IP layer information, transmission control protocol (TCP) layer information and a IP packet payload.

23. (Currently Amended) The method as set forth in Claim 22 wherein ~~the said~~ IP packet payload comprises an over-the-air service provisioning payload associated with ~~the said~~ at least one data burst message.

24. (Currently Amended) The method as set forth in Claim 17 wherein ~~the said~~ steps of receiving and converting ~~the said~~ at least one of a software program, a software correction patch and provisioning data into at least one data burst message comprises the sub-step of converting ~~the said~~ at least one of a software program, a software correction patch and provisioning data into at least one data burst message according to at least one of: 1) an IS-683-A protocol; 2) a short messaging service (SMS) protocol; and 3) extensible mark-up language (XML) protocol.